

Myocardial Perfusion Scan

Your doctor wants you to have a myocardial perfusion scan. This sheet will answer some of the questions you may have about the test.

Why do I need a myocardial perfusion scan?

Your doctor wants to check the blood supply to your heart muscle. Blood supply may be reduced in people who have heart (coronary) disease. This can cause pain and shortness of breath, and increase the risk of a heart attack.

The inner walls of the coronary arteries are usually smooth. Blood flows through them easily. Sometimes, fats and other things carried in the blood stream begin to stick to the artery walls. When these materials build up into something called plaque, the arteries become narrow or blocked. This is called coronary artery disease. Blood cannot flow through the arteries easily. The heart may not get the oxygen it needs.

The myocardial perfusion scan helps your doctor see if your coronary arteries are narrowed or blocked, and if your heart is getting the blood supply it needs. S/he can then decide the best treatment for you.

What should I do to get ready for the test?

Eat a light breakfast and take your medications before the test. Do not have coffee, soda pop, or chocolate the morning of the test. You should wear good walking shoes and comfortable clothes.

What should I expect during the test?

This test is done in Nuclear Medicine (in the basement). The technologist places an intravenous (IV) line (plastic tube with a needle) in your arm. A low dose radioactive tracer is injected through the line. About one hour later, you will have pictures taken of your chest. This takes about 15 minutes. Then an electrocardiogram is done and you will exercise on a treadmill or by turning a bicycle crank with your arms. This will stress your heart. We can also stress your heart with medication. We can find out more about your heart when it is working than when it is at rest.

When your heart rate is high enough, or if you get chest pain, or if you get too tired to go on much longer, a small amount of a radioactive tracer is injected through the IV line. You will not feel the tracer and it will not cause an allergic reaction. After the tracer is injected, you will be asked to exercise for another minute so it can circulate. The technologist will have you wait before the second set of pictures. This takes about 15 minutes. You may be asked to drink water. This improves the quality of the pictures

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The tracer is carried to your heart through your coronary arteries. If there is an area of your heart that is being shortchanged on its blood supply, it will show up as a hole or defect on the pictures.

Does this test have any risks?

The radiation dose used is small, like having x-rays.

The risk of exercise is very low. We do more than 2000 of these tests a year in Nuclear Medicine. It is rare to see a significant complication. Your heart and blood pressure are watched carefully during the test. The doctors doing the tests are well trained to deal with any problems that may arise.

When will the results of this test be available?

A doctor in Nuclear Medicine will interpret your test results. The results are available to your doctor by phone on the afternoon of the test. A report will also be sent to the doctor who ordered the test. S/he will discuss the results with you.

We hope this sheet has answered some of your questions about the myocardial perfusion scan. Be sure to ask about anything you do not understand.

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VA Medical Center

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